



IFW

PATENT
ATTORNEY DOCKET NO. 046124-5289

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
Tadataka EDAMURA et al.)	Confirmation No.: 4810
)	
Application No.: 10/823,575)	Group Art Unit: 2811
)	
Filed: April 14, 2004)	Examiner: <i>Unassigned</i>
)	
For: SEMICONDUCTOR CHIP, TERAHERTZ)	
ELECTROMAGNETIC-WAVE DEVICE,)	
AND METHOD OF MANUFACTURING)	
THESE)	

Commissioner for Patents
U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window,
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Sir:

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents listed on the attached PTO Form-1449. To the best of the undersigned's knowledge, this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

Applicants respectfully request that the Examiner consider the listed documents and evidence that consideration by making appropriate notations on the attached PTO Form-1449.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If it should be determined that any of the listed documents do not

constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such document.

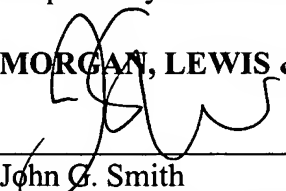
Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

Except for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310.

This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP



John G. Smith

Registration No. 33,818

Dated: August 5, 2004

Customer No. 009629
MORGAN, LEWIS & BOCKIUS LLP
1111 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
(202) 739-3000

INFORMATION DISCLOSURE CITATION				Attorney Docket No.: 041514-5289		Application No.: 10/823,575	
(Use several sheets if necessary) PTO Form-1449				PAGE 1 OF 1			
				Applicant(s): Tadataka EDAMURA et al.			
				Filing Date: April 14, 2004		Group: 2811	
U.S. PATENT DOCUMENTS							
Examiner Initial	Document Number	Date	Name	Class	Sub Class	Filing Date	
FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	Sub Class	Translation Yes No	
	JP 2002-257629	September 11, 2002	Japan			Abstract	
	JP 07-036064	February 7, 1995	Japan			Abstract	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	Gupta et al.; "Ultrafast Carrier Dynamics in III-V Semiconductors Grown by Molecular-Beam Epitaxy at Very Low Substrate Temperatures"; IEEE Journal of Quantum Electronics; Vol. 28; No. 10; pp. 2464-2472; (1982).						
	Tani et al.; "Applications of Terahertz Spectroscopy"; Ministry of Posts and Telecommunications, Telecommunications Multi-disciplinary Research Center, pp. 79-90. (ABSTRACT)						
	Ogawa et al., "GaAs Ultrafast Photoconductive Switches and Their Application to Ultrafast Photonic Sampling Technology"; Appl. Phys. Letter, Vol. 66, (1995), pp. 2-12.						
	Sakai et al.; "Terahertz Optoelectronics"; Excerpts, Vol. 70, No. 2, (2001), pp. 149-155.						
	Kaminska et al.; "Structural Properties of As-rich GaAs Grown by Molecular Beam Epitaxy at Low Temperatures"; Appl. Phys. Letter; Vol. 54; No. 19, (1989); pp. 1881-1883.						
	Warren et al.; "Arsenic Precipitates and the Semi-Insulating Properties of GaAs Buffer Layers Grown by Low-Temperatures Molecular Beam Epitaxy"; Appl. Phys. Letter; Vol. 57; No. 13; (1990); pp. 1331-1333.						
	Fan et al.; "Thermal Stability of Low-Temperature-Grown GaAs"; Journal of Crystal Growth; Vol. 143; (1994); pp. 354-358.						
	Tadayon et al.; "Characterization of Low Range GaAs"; Journal of Electronic Materials; Vol. 24; No. 11; (1995); pp. 1753-1758.						
	Smith et al; "Picosecond GaAs-based Photoconductive Optoelectronic Detectors"; Appl. Phys. Letter; Vol. 54; No. 10; (1989); pp. 890-892.						
	Look; "Molecular Beam Epitaxial GaAs Grown at Low Temperatures"; Thin Solid Films; Vol. 231; (1993); pp. 61-73.						
Examiner				Date Considered			
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication.							